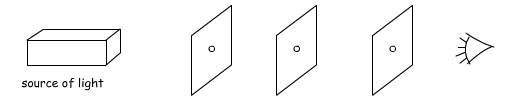
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| --- | --- | --- |
|  | **Physics** | **شعار-القسم** |
| **Optics** |
| Worksheet-6- |

|  |  |
| --- | --- |
| Name: Class: 8 /……........ | |
| Book pages: | |
|  | Date: 20-5-2012 |
| 8.18.1-8.18.2 | Core Standard number |
| 1. Know that light travels in straight lines and that objects in the path of light cast shadows .  2.Distinghuish between a beam of light and a ray of light.  3. Know that the intensity of light can vary depending on the light source and its distance away; measure the intensity using a light sensor.. | Learning Objectives  Logo + text 2 |

**A- How does the light ravel?**

**1- Experiment**

**Set up the following experiment:**



a- How do you arrange the three cards to see the light?

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b- In case you see the light, pass a string through the holes. What is the shape that makes the string?

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c- Move, a little, the card in the center: do you still seeing the light?

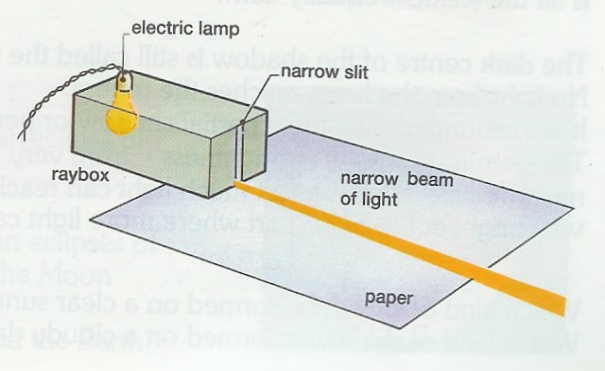
………………………………………………………………………………………………………………………………………………………………………………………………………………………………………..

2**-**How does light travel?

……………………………………………………………………………………………………………………………………………………………………………………………………………………

**B-Experiment-2**

Set up the following apparatus



1- What do you see on the piece of paper?

…………………………………………………………………………………………………………………………………………………………………………………………………………………. .

2- Set the hole in front of the light source as narrow as possible. What do you see?

…………………………………………………………………………………………………………

**C- Experiment-3**

1- Hold a table-tennis ball between the small electric lamp and the screen. What do you see on the screen?

…………………………………………………………………………………………………………..

2- Choose the dimension of the light source as the dimension of the ball. Describe what you see on the screen?

…………………………………………………………………………………………………………

3- Complete the following figures:

Point source

Obstacle

Screen

a- Case of point source

b- Case of extent source

Extent source

Obstacle

Screen

**D-Intensity of light**

1- What is the relationship between the intensity of the light source and its wattage?

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2- What is the relationship between the distance from the light source and its light intensity?

…………………………………………………………………………………………………………

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